

Amendment Under 37 C.F.R. 1.114
U.S. Appl No. 10/522,618
Attorney Docket No. 052009

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions of claims in the application.

Listing of Claims:

1. (Currently amended): A method of producing a polarizing film, comprising the steps of:

allowing a hydrophilic polymer film to swell wherein the polymer film is conveyed by means of a guide roll so as to be impregnated in an aqueous solvent in a swelling bath;

dyeing the polymer film using a dichroic substance; and

stretching the polymer film,

wherein the hydrophilic polymer film is a polyvinyl alcohol-based film,

wherein in the swelling step, at least a first guide roll and a second guide roll are arranged in the swelling bath, and

when the polymer film is impregnated in and allowed to travel in the aqueous solvent, the polymer film is brought into contact with the first guide roll within a time up to when swelling reaches a saturation state swelling of the polymer film occurs abruptly and further is brought into contact with the second guide roll after the swelling reaches the saturation state the swelling of the polymer film has occurred abruptly,

wherein a required length of time (a) between the time when the polymer film is brought into contact with the aqueous solvent and the time when the polymer film is brought into contact with the first guide roll is 0.6 to 12 seconds,

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wherein a required length of time (b) between the time when the polymer film is brought into contact with the first guide roll and the time when the polymer film is brought into contact with the second guide roll is 13 to 120 seconds, and

wherein an arbitrary point on the film is impregnated in the swelling bath for a total length of time of from 63 to 120 seconds.

2-7. (Canceled).

8. (Previously presented): The method according to claim 1,
wherein a length of time in which the polymer film is impregnated in the swelling bath is not less than 100 seconds.

9. (Previously presented): The method according to claim 1,
wherein the hydrophilic polymer film before being subjected to a swelling treatment has a thickness in a range of not more than 110 μm .

10. (Canceled)

11. (Previously presented): The method according to claim 1,
wherein the hydrophilic polymer film contains a plastic material in an amount of 1 to 17

wt%.

12. (Previously presented): The method according to claim 1,
wherein at least one of the first and second guide rolls is selected from a crown roll, a
bent roll, and a roll with lugs.

13. (Previously presented): The method according to claim 1,
wherein a guide roll other than the first guide roll comprises a spiral roll.

14. (Previously presented): The method according to claim 1,
wherein a temperature of the swelling bath is in a range of 15 to 50°C.

15. (Previously presented): The method according to claim 1,
wherein in the swelling step, the polymer film is subjected to a further stretching
treatment in the swelling bath.

16. (Previously presented): The method according to claim 1,
wherein with respect to a length of the polymer film before being subjected to the
swelling step, a stretch ratio of the polymer film in the stretching treatment is in a range of 1.5 to
4.0 times.

17. (Previously presented): The method according to claim 1,
wherein the dichroic substance is at least one of iodine and organic dyestuffs.

18. (Original): The method according to claim 17,
wherein the dichroic substance comprises at least two of the organic dyestuffs.

19-30. (Canceled)

31. (New): The method according to claim 1,
wherein aqueous solvent in the swelling bath is water,
wherein the dyeing step is conducted in a dyeing bath containing dichroic substance and
potassium iodide, and
wherein the stretching step is conducted in a stretching bath containing boric acid.